NWS FORM E-5 (11-88) **(PRES. by NWS Instruction 10-924)** **U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE**	HYDROLOGIC SERVICE AREA (HSA) **WFO Jackson, Mississippi**
MONTHLY REPORT OF HYDROLOGIC CONDITIONS	REPORT FOR: MONTH **May** YEAR **2015**
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283	SIGNATURE **Alan E. Gerard, Meteorologist In-Charge** DATE **6/25/2015**

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

☐ **An X inside this box indicates that no river flooding occurred within this hydrologic service area.**

Synopsis...

For the month of May, the Jackson HSA (Hydrologic Service Area) received slightly above average monthly temperatures. All ASOS (Automated Surface Observing System) locations ranged from 0.7 degrees to 1.5 degrees above normal. In regards to precipitation, it was a bit varied. Meridian received more than two inches below its normal May average rainfall. Greenwood was pretty much normal, while all the other ASOS locations received at least two inches above normal rainfall.

To start out, the month of May in the ArkLaMiss experienced mild high pressure which dominated the weather pattern for the first week or so. No significant rain fell during this period. On May 9th however, an outflow boundary approached the HSA from the northwest and dropped up to a half inch of rain in Ashley County and Morehouse Parish, but it completely dissipated before going any further east. The next occurrence of rain was on the 12th when a cold front passed through the HSA. The rain was widely scattered, but the majority of the southeast HSA received rainfall up to a half inch on this day.

May 16th was the day that the typical summer weather pattern moved into place within the Southeast. Widespread afternoon showers and storms occurred across the area on this day, as well as on the 17th. Amounts as much as 1.5 inches were seen in isolated locations each day; however, a more widespread amount of 0.5 inches was most common.

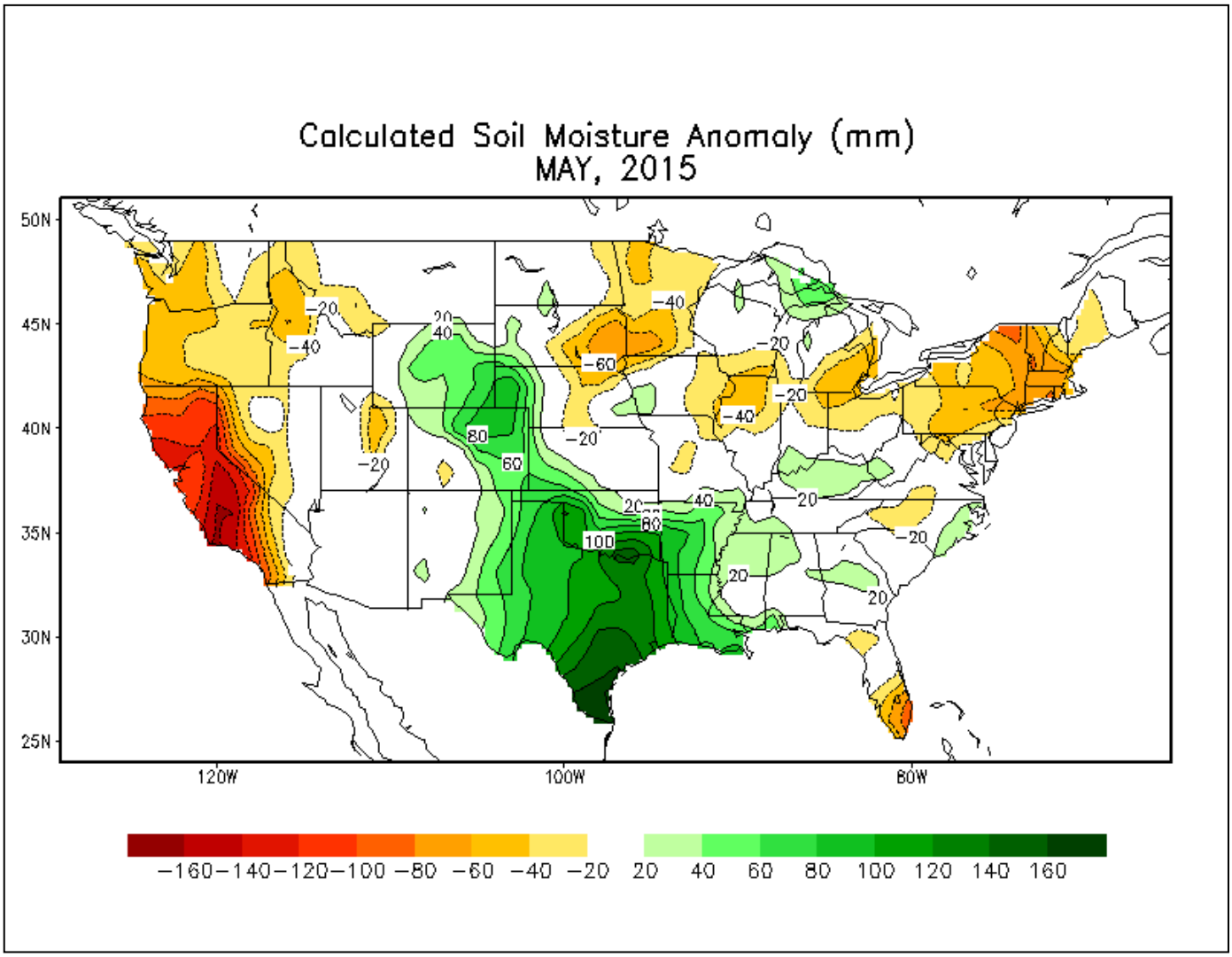
On the 18th, a powerful, but slow-moving, cold front approached the HSA and dropped a good deal of rain in a couple of rural locations within the HSA's Louisiana parishes where up to 6 inches in Madison and Richland Parishes fell. Other locations in the northwest half of the HSA received a general one to two inches. Much of the same transpired on the 19th. Heavy rain fell due to the cold front passing through the HSA. The same location in Madison Parish that received 6 inches the day before received another 3 inches on this day.

The cold front passed on and allowed Louisiana to dry out for at least one day before scattered, afternoon showers popped up again on the 21st. On the 22nd, most of the showers remained in Louisiana and southern Mississippi, only an inch of rainfall this time on the most western and southern boundaries of the HSA. On the 25th and 26th, a shortwave dropped a good deal of rain throughout the entire HSA with pinpoints of 3+ inches in the Big Black River basin and 1.5 inches on the southern Mississippi River.

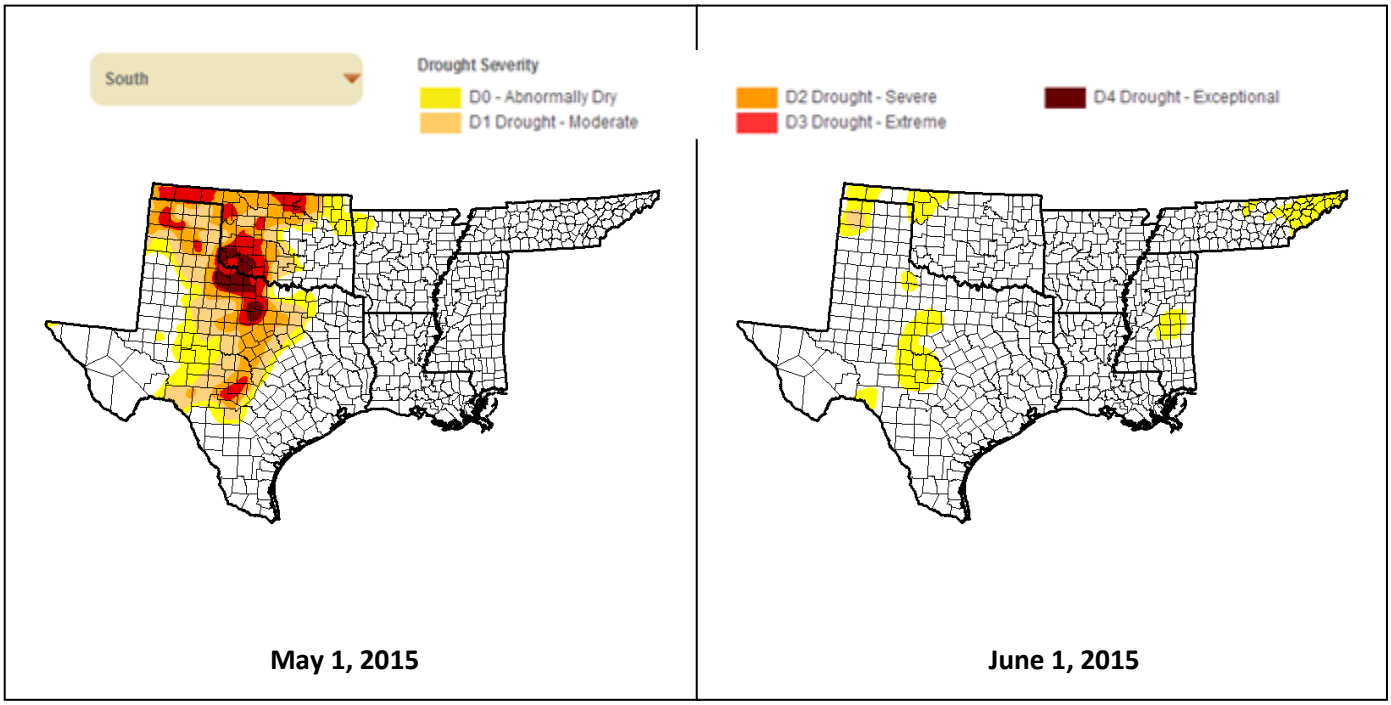
Southerly flow and a summertime pattern returned the next day then and lasted through the rest of the month. Afternoon scattered showers occurred throughout the HSA on the 28th, 30th, and 31st.

River and Soil Conditions

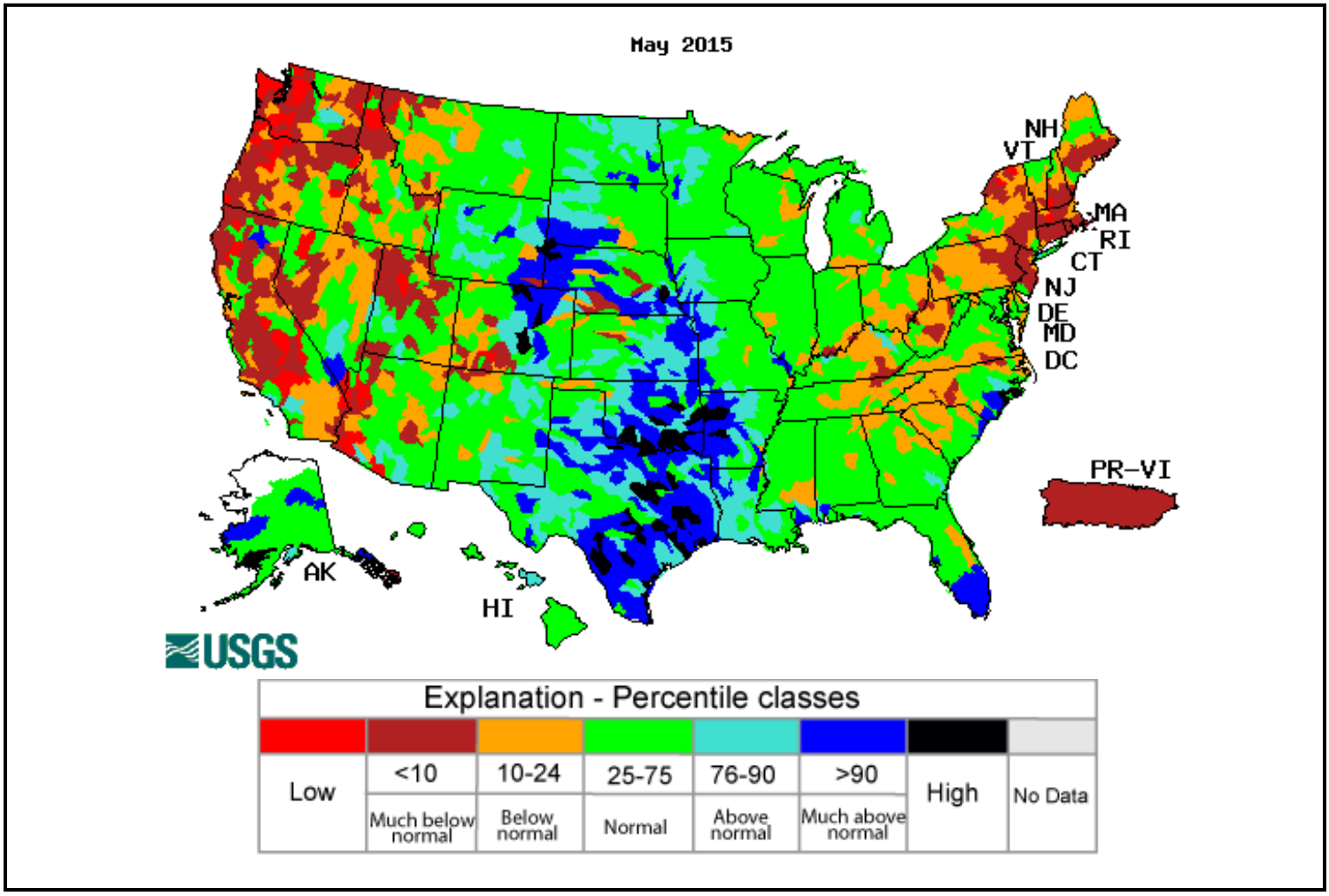
Soil Moisture Map:



Drought Comparison:



Streamflow:
The United States Geological Survey's (USGS) May 2015 river streamflow records were compared with all historical May streamflow records. The average streamflow for this May was above normal for the Black River basin in Northeast Louisiana and for the Ouachita River Basin in Southeast Arkansas. Below normal streamflow was experienced in the Pascagoula River Basin in Southeast Mississippi and normal streamflow was experienced throughout the rest of the HSA.

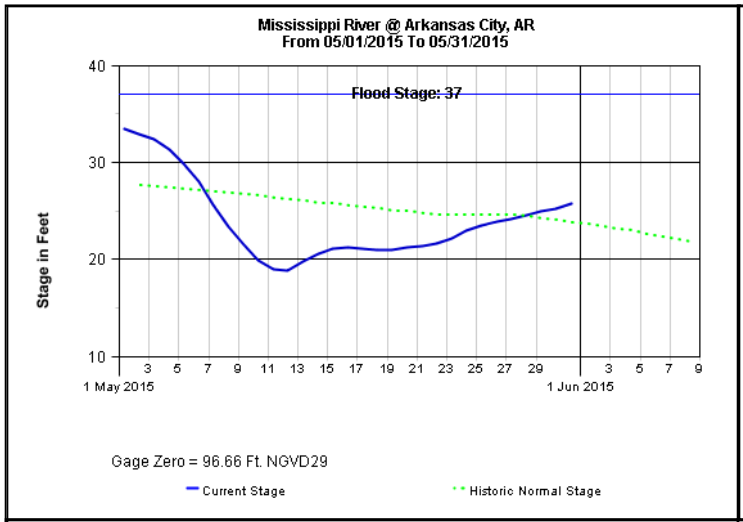


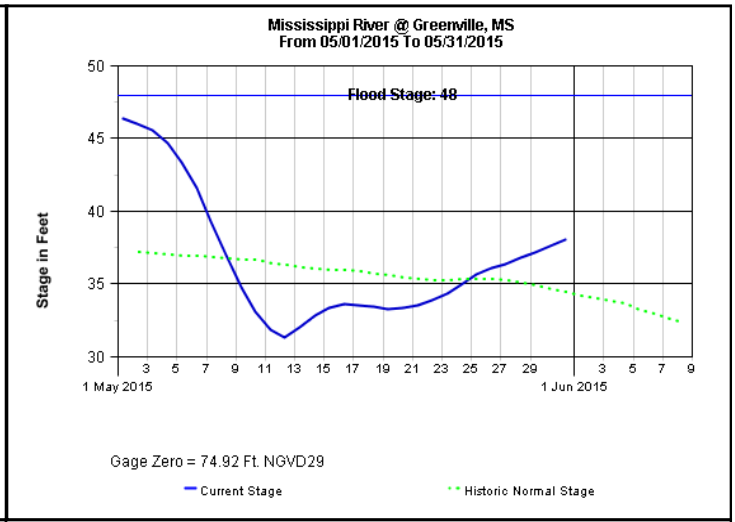
River Conditions:
Minor flooding occurred along the entire reach of the Big Black River while minor flooding only occurred on the Mississippi River at Natchez. For additional information on the conditions of the Mississippi River from Arkansas City to Natchez, refer to the hydrographs on the next page.

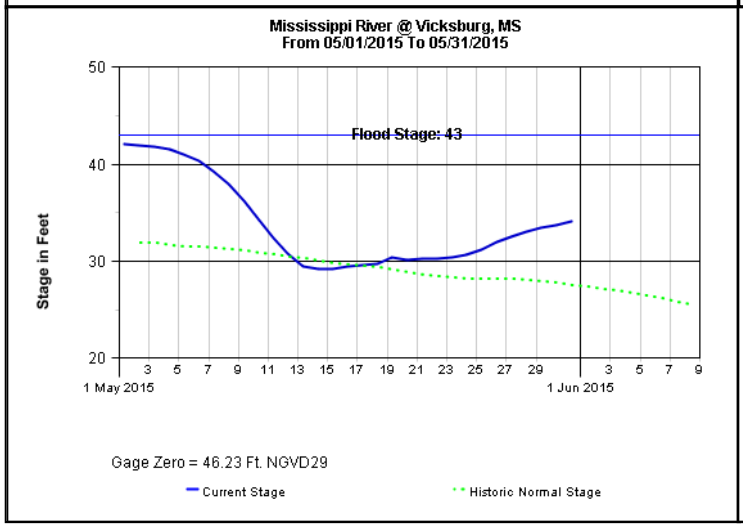
Climatic Outlook and Flood Potential:
The climatic outlook shows equal chances for above, below, and normal temperatures over the next three months for the entire HSA. In regards to precipitation, the outlook calls for below normal chances of rainfall south of line from Winnsboro, LA to Vicksburg, MS to Columbus, MS while areas north of this line have equal chances for above, below, and normal rainfall. Thus, based on current soil moisture, streamflow, and the 3-month weather outlook, the flood potentials are as follows:

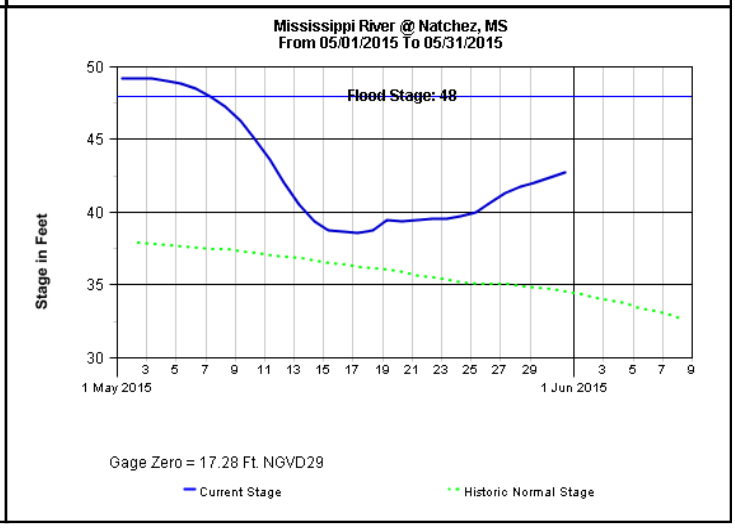
Pearl River System: Normal.
Yazoo River System: Normal.
Big Black River System: Normal.
Homochitto River System: Normal.
Pascagoula River System: Below normal.
Northeast LA and Southeast AR: Normal.
Tombigbee River System: Normal.
Mississippi River: Above normal.

Mississippi River Plots May 2015
Plots Courtesy of the United States Army Corps of Engineers









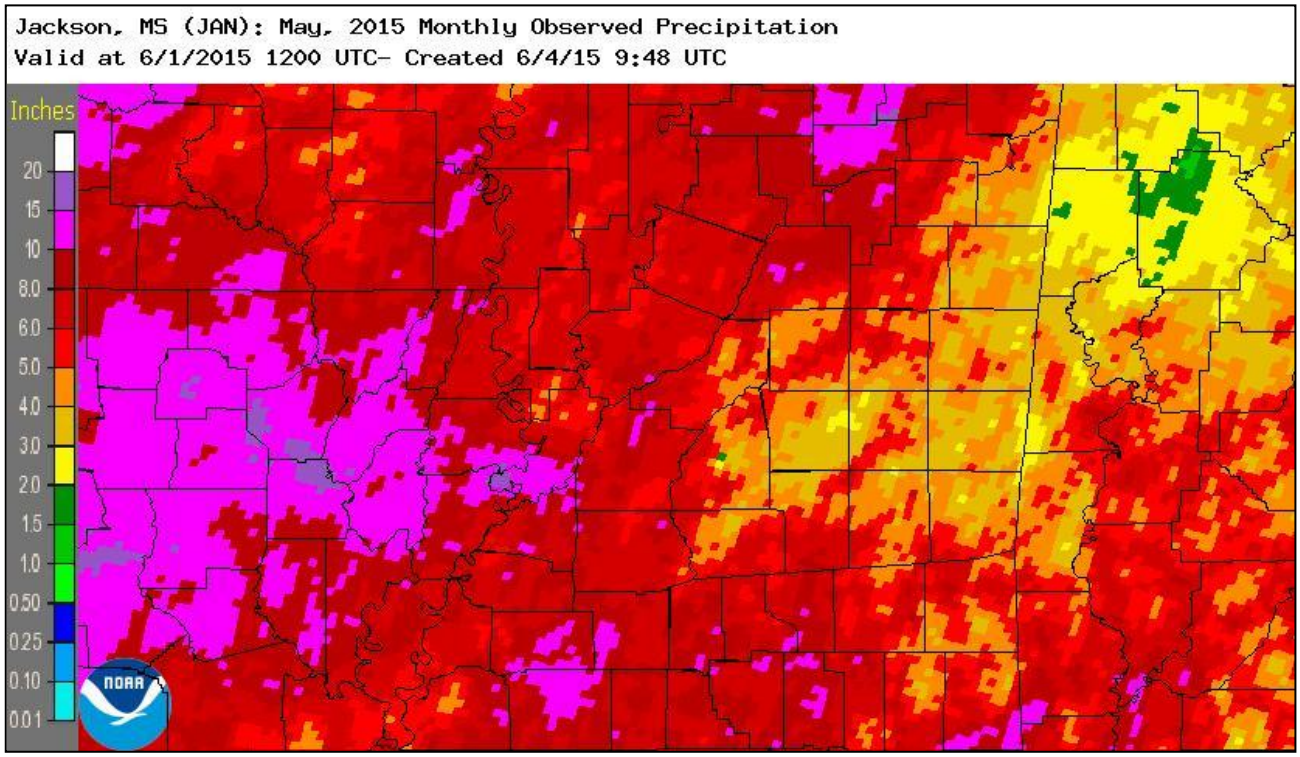
Monthly Preliminary High and Low Stages:

Location	Flood Stage (ft)	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City	37	33.41	5/01	18.86	5/12
Greenville	48	46.35	5/01	31.34	5/12
Vicksburg	43	42.06	5/01	29.14	5/14
Natchez	48	49.17	5/01	38.61	5/17

Rainfall for the Month of May

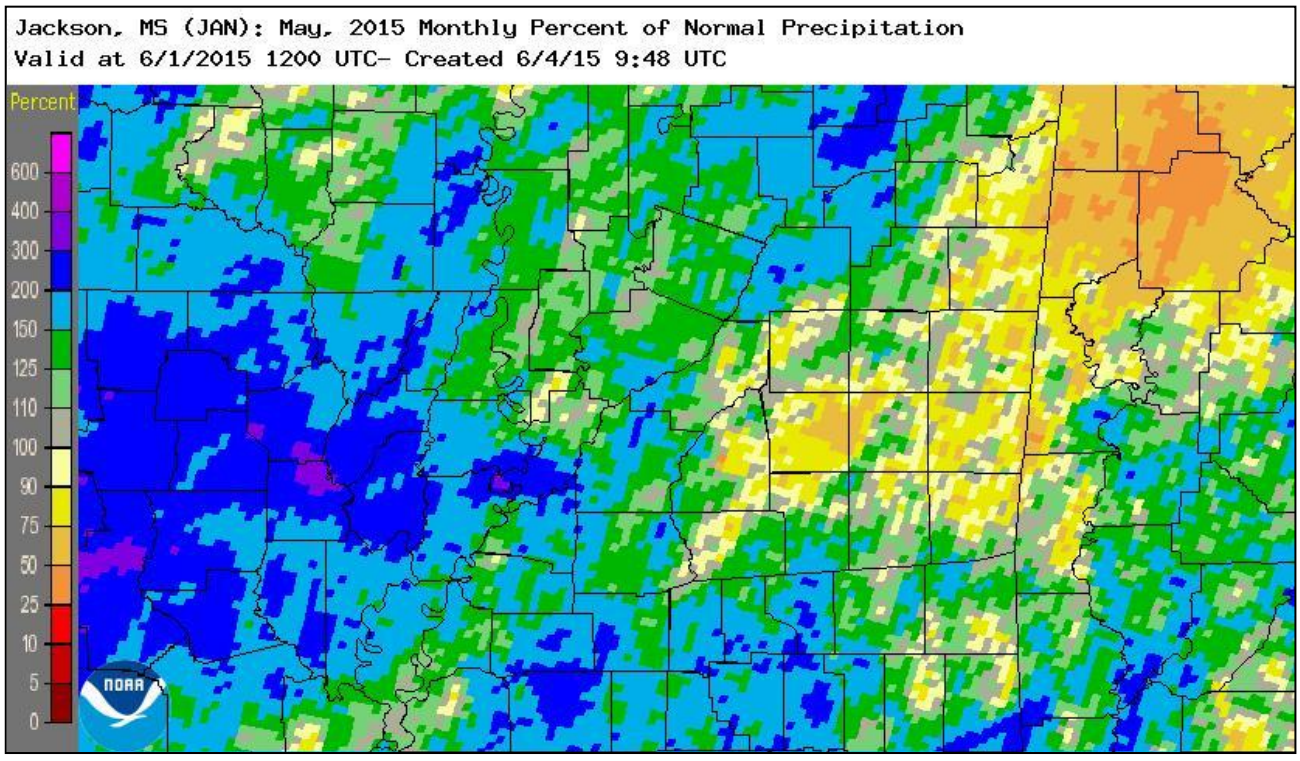
The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on April 30th until 7 am on May 31st were: 9.98 inches at Tallulah, MS; 9.96 inches at Jonesville L&D, LA; 9.58 inches at Winnsboro 2SE, LA; 9.50 inches at Meadville, MS; 8.53 inches at Vaiden, MS ; 8.46 inches at Winona, MS; 8.36 inches at Sumrall, MS; 8.22 inches at Winnsboro 5SSE, LA; 8.12 inches at Hazlehurst, MS; and 8.04 inches at Hattiesburg, MS.

May Rainfall Estimates:



Note: Observer rainfall and MPE may differ due to time differences.

May Percent of Normal Precipitation:



Note: Observer rainfall and MPE may differ due to time differences.

May Rainfall for Selected Cities:

City (Airport)	Rainfall	Departure from Normal	2015 Rainfall	2015 Departure from Normal
Jackson (KJAN)	7.06	+2.68	28.28	+4.17
Meridian (KMEI)	2.16	-2.34	23.06	-2.37
Greenville (KGLH)	4.63	-0.28	19.97	-4.29
Greenwood (KGWO)	7.00	+2.05	27.93	+4.60
Hattiesburg (KHBG)	6.91	+1.93	23.82	-2.72
Vicksburg (KTVR)	8.74	+3.78	30.27	+4.97

Total Flood Warning products issued: 7
Total Flood Statement products issued: 40
Total Flood Advisories MS River: 0
Daily Climate and Ag WX Products (AGO'S) issued: 31
Daily CoCoRaHS Rainfall Products (LCO'S) issued: 31
Daily River and Lake Summary Products (RVD'S) issued: 31

Marty V. Pope
Service Hydrologist
&
Anna Weber
Assistant Hydrologist/ Meteorologist-Intern

Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District